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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Ala | Lys | Lys | Leu | Phe | Pro | Gln | Gly | Tyr | Lys | Ser | Val | Asp | Leu | Pro |
| | | 195 | | | | | 200 | | | | | 205 | | | |

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Lys | Asp | Tyr | Leu | Arg | Phe | Thr | Asn | Val |
| 210 | | | | | | 215 | | | | |

1. A synthetic DNA sequence for expressing a protein of interest in maize cells which comprises:

- a) a codon-optimized DNA sequence encoding the protein of interest,
- b) at least one polyadenylation signal sequence chosen from the group consisting of Class I and Class II wherein;

Class I is chosen from the group consisting of AATAAA, AATAAT, AACCAA, ATATAA, AATCAA, ATACTA, ATAAAA, ATGAAA, AAGCAT, ATTAAT, ATACAT, AAAATA, ATTAAA, AATTAA, AATACA, and CAT-AAA; and

Class II is chosen from the group consisting of ATATAT, TTGTTT, TTTTGT, TGTTTT, TATATA, TATTT, TrTTT, ATTTT, TTAATTT, TTTATT, TAATAA, ATT-TAT, TATATT, TrTTAT, ATATTT, TATTAT, TGTTTG, TTATAT, TGTAAT, and AAATAA; and

wherein said codon-optimized DNA sequence contains at least one polyadenylation signal sequence from Class II and wherein said synthetic DNA sequence contains fewer Class II polyadenylation signal sequences than the protein's native DNA sequence and contains the same number of class I polyadenylation signal sequences compared to said native DNA sequence.

2. The synthetic DNA sequence of claim 1 that is substantially devoid of class II polyadenylation signal sequences.

3. The synthetic DNA sequence of claim 1 that is devoid of class II polyadenylation signal sequences.

4. The synthetic DNA sequence of claim 1 wherein said synthetic DNA sequence encodes a native protein selected from the group consisting of insecticidal proteins, herbicide tolerance proteins, stress tolerance-related proteins, and oil profile modification proteins.

5. The synthetic DNA sequence of claim 4 wherein said synthetic DNA sequence encodes an insecticidal protein.

6. The synthetic DNA sequence of claim 4 wherein said synthetic DNA sequence encodes aryloxyalkanoate dioxygenase 1 protein.

7-12. (canceled)

13. A synthetic DNA sequence chosen from the group consisting of SEQ ID NO:5, SEQ ID NO:11, SEQ ID NO:17, SEQ ID NO:23, SEQ ID NO:29, SEQ ID NO:35, SEQ ID NO:41, SEQ ID NO:47, SEQ ID NO:53, SEQ ID NO:59, SEQ ID NO:65, and SEQ ID NO:71.

14. A DNA construct for expression of a protein of interest comprising a 5' non-translated sequence, a coding sequence for a protein of interest, and a 3' non-translated region, wherein said 5' nontranslated sequence contains a promoter functional in a plant cell, said coding sequence is the synthetic DNA coding sequence of claim 1, and wherein said 3' nontranslated sequence comprises a transcription termination sequence and a polyadenylation signal.

15. (canceled)

16. A transgenic plant containing the synthetic DNA sequence of claim 1.

17. (canceled)

18. A method of controlling pests in grain or seed which comprises obtaining said grain or seed from plants containing the synthetic DNA of claim 5.

19. (canceled)

20. A method of controlling pests in grain or seed which comprises obtaining said grain or seed from plants containing the synthetic DNA of claim 5.

21. A method of controlling pests in meal or flour which comprises obtaining said meal or flour from the grain containing the synthetic DNA of claim 5.

22. A composition derived from the transgenic plant of claim 16 wherein said composition is a commodity product selected from the group consisting of meal, flour, protein concentrate, or oil.

23. (canceled)

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